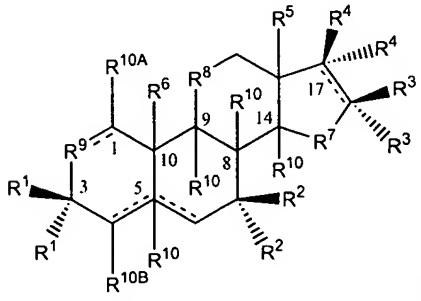
1. (currently amended) Use of a compound for the treatment of cystic fibrosis, autism, sickle cell disease, neutropenia or thrombocytpoenia in a subject, or for the treatment of a symptom of neutropenia or thrombocytopenia, wherein the use comprises administering an effective amount of the compound to the subject and the compound has the structure 5, 6, 7, 8, 9, 10, 11, 12, 13 or 14



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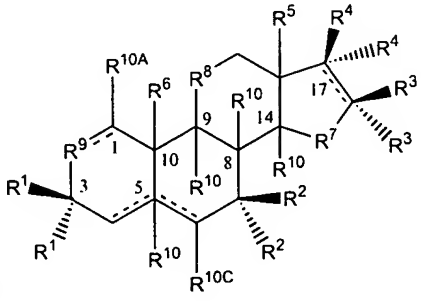

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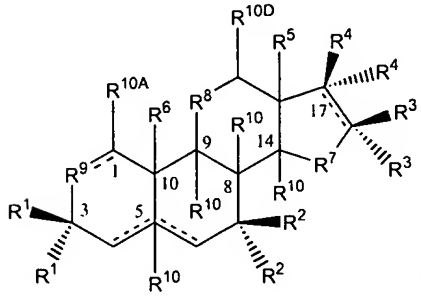

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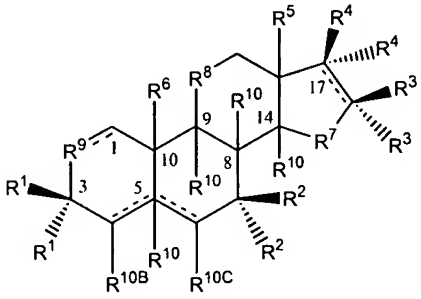

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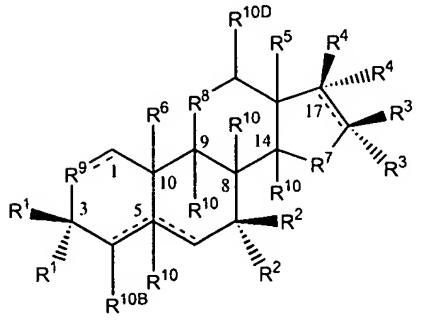

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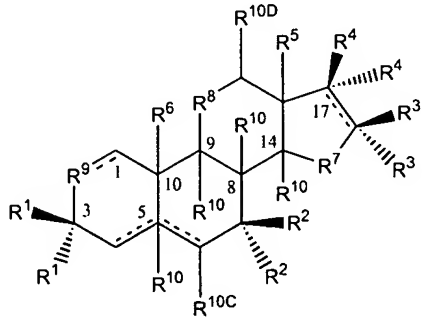

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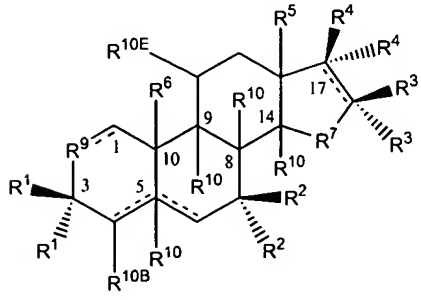

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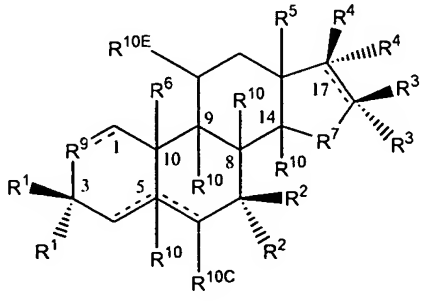

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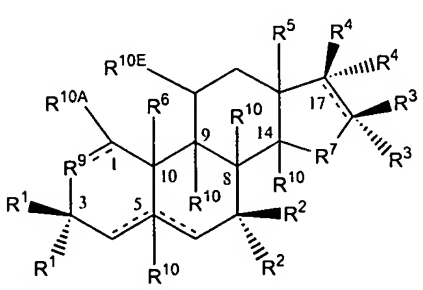
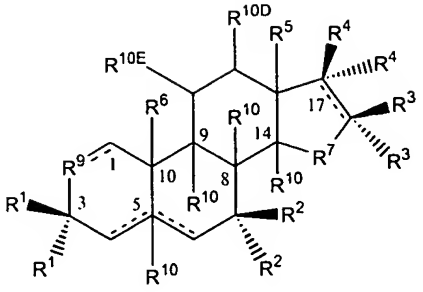



13 or 14,

or a salt, metabolic precursor or a metabolite thereof, wherein

R^{10} moieties at the 5 (if present), 8, 9 and 14 positions respectively are in the α,α,α,α, α,α,α,β, α,α,β,α, α,β,α,α, β,α,α,α, α,α,β,β, α,β,α,β, β,α,α,β, β,α,β,α, β,β,α,α, α,β,β,α, α,β,β,β, β,α,β,β, β,β,α,β, β,β,β,α or β,β,β,β configurations,

wherein R^{10A}, R^{10B}, R^{10C}, R^{10D} and R^{10E} respectively are in the α,α, α,β, β,α or β,β configurations,

wherein, each R^1, R^2, R^3, R^4, R^5, R^6, R^{10}, R^{10A}, R^{10B}, R^{10C}, R^{10D} and R^{10E} independently are -H, -OH, -OR^{PR}, -SR^{PR}, -NHR^{PR}, -$N(R^{PR})_2$, -O-Si-$(R^{13})_3$, -CHO, -CHS, -CN, -SCN, -NO_2, -NH_2, -COOH, -OSO_3H, -OPO_3H, an ester, a thioester, a thionoester, a phosphoester, a phosphothioester, a phosphonoester, a phosphiniester, a sulfite ester, a sulfate ester, a sulfamate, a sulfamide, a sulfonamide, a sulfurous diamide, an amide, an amino acid, a peptide, an ether, a thioether, an acyl group, a thioacyl group, a carbonate, a carbamate, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heteroaryl moiety, an optionally substituted heterocycle, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer, or,

one more of R^1, R^2, R^3, R^4, R^5, R^6, R^{10}, R^{10A}, R^{10B}, R^{10C}, R^{10D} and R^{10E} are =O, =S, =N-OH, =CH_2, =CH-CH_3, or an independently selected spiro ring and the hydrogen atom or the second variable group that is bonded to the same carbon atom is absent, or,

one or more of two adjacent R^1-R^6, R^{10}, R^{10A}, R^{10B}, R^{10C}, R^{10D} and R^{10E} comprise an independently selected epoxide, acetal, a thioacetal, ketal or thioketal;

R^7 is $-C(R^{10})_2-$, $-C(R^{10})_2-C(R^{10})_2-$, $-C(R^{10})_2-C(R^{10})_2-C(R^{10})_2-$, $-C(R^{10})_2-O-C(R^{10})_2-$, $-C(R^{10})_2-S-C(R^{10})_2-$, $-C(R^{10})_2-NR^{PR}-C(R^{10})_2-$, -O-, $-O-C(R^{10})_2-$, -S-, $-S-C(R^{10})_2-$, $-NR^{PR}-$ or $-NR^{PR}-C(R^{10})_2-$;

R^8 and R^9 independently are $-C(R^{10})_2-$, $-C(R^{10})_2-C(R^{10})_2-$, -O-, $-O-C(R^{10})_2-$, -S-, $-S-C(R^{10})_2-$, $-NR^{PR}-$ or $-NR^{PR}-C(R^{10})_2-$, or one or both of R^8 or R^9 independently are absent, leaving a 5-membered ring;

R^{13} independently is C_{1-6} alkyl; and

R^{PR} independently is -H or a protecting group, provided that (1) one R^4 is $-NH_2$, an optionally substituted amine, $-N(R^{PR})^2$, =NOH, =NO-optionally substituted alkyl, an amide or an N-linked amino acid, or (2) the condition is cystic fibrosis or a sickle cell disease.

2. (previously amended) Use according to claim 1 wherein one each of R^1, R^2, R^3 and R^4 are -H, and, when no double bond links the second R^1, R^2, R^3 and R^4 to the ring to which it is bonded and no double bond is present at the 16-17 position, then the second R^1, R^2, R^3 and R^4 respectively are in the α,α,α,α, α,α,α,β, α,α,β,α, α,β,α,α, β,α,α,α, α,α,β,β, α,β,α,β, β,α,α,β, β,α,β,α, β,β,α,α, α,β,β,α, α,β,β,β, β,α,β,β, β,β,α,β, β,β,β,α or β,β,β,β configurations and the second R^1, R^2, R^3 and R^4 are optionally independently selected from -H, -F, -Cl, -Br, -I, -OH, -SH, $-NH_2$, -COOH, $-CH_3$, $-C_2H_5$, $-C(CH_3)_3$, $-OCH_3$, $-OC_2H_5$, $-CF_3$, $-CH_2OH$, $-C(O)CH_3$, $-C(O)CH_2OH$, $-C(O)CH_2F$, $-C(O)CH_2Cl$, $-C(O)CH_2Br$, $-C(O)CH_2I$, $-C(O)CF_3$, $-C_2F_5$, =O, $=CH_2$, $=CHCH_3$, amino acid, carbamate, carbonate, optionally substituted C1-C20 alkyl, optionally substituted C1-C20 ether, optionally substituted C1-C20 ester, optionally substituted C1-C20 thioether, optionally substituted C1-C20 thioester, optionally substituted monosaccharide, optionally substituted disaccharide, optionally substituted oligosaccharide.

3. (currently amended) Use according to ~~claim 1 or 2~~ claim 1 wherein

(a) R^{10A} is bonded to the ring to which it is attached by a single bond and a double bond is present at (i) the 1-2 position, or (ii) the 1-2 and 16-17 positions; or

(b) R^{10B} is bonded to the ring to which it is attached by a single bond and a double bond is present at the 4-5 position; or

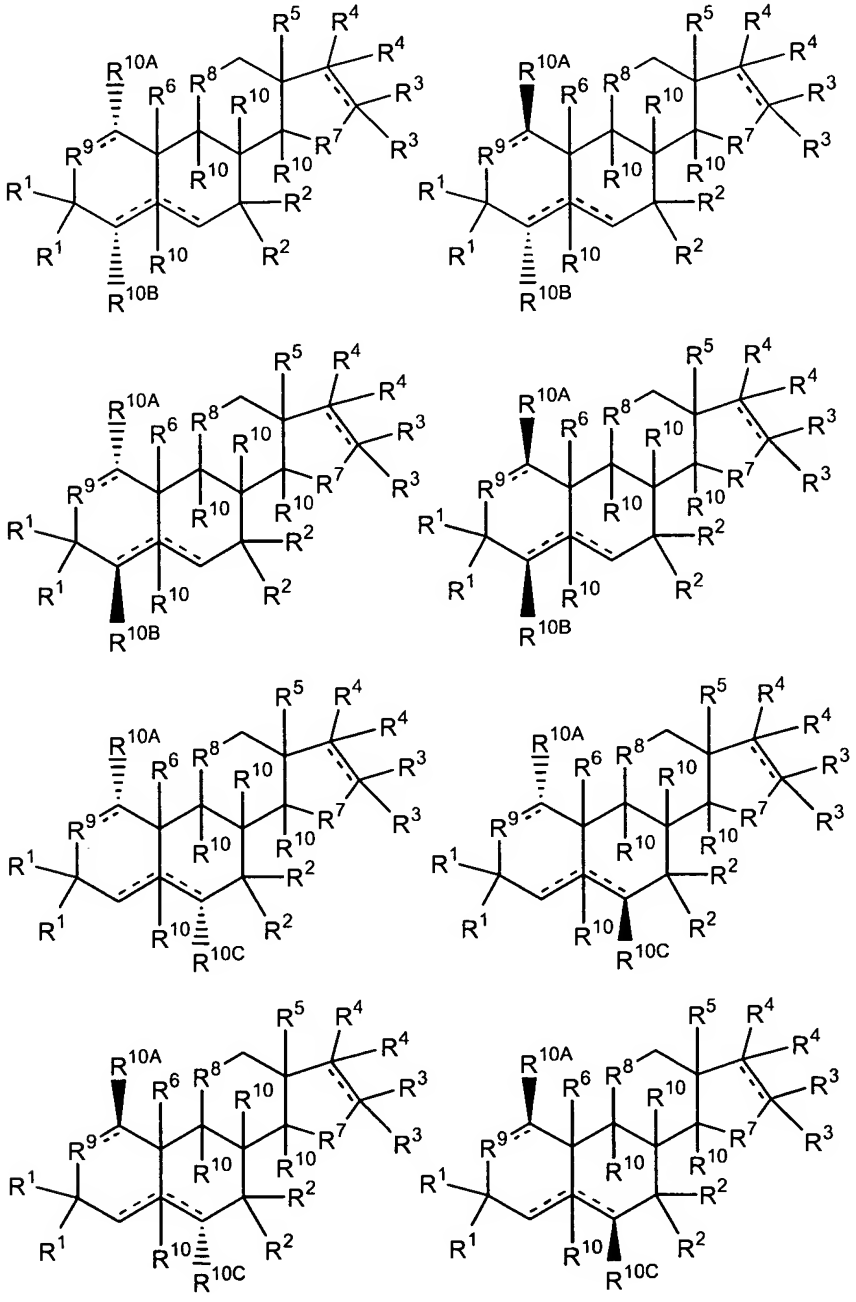
(c) R^{10c} is bonded to the ring to which it is attached by a single bond and a double bond is present at the 5-6 position; or

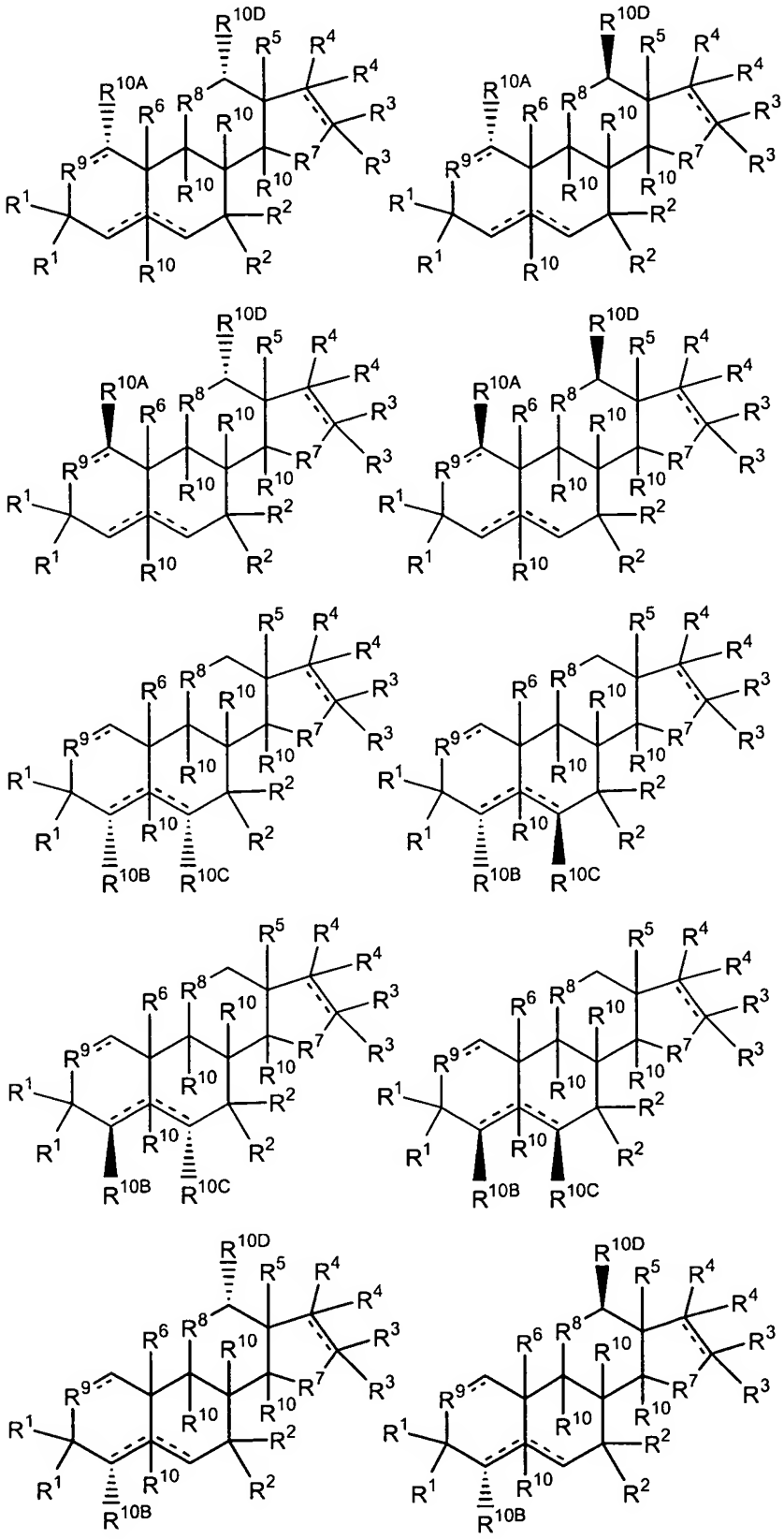
(d) R^{10A} and R^{10B} are bonded to the rings to which they are attached by a single bond and a double bond is present at (i) the 1-2 and 4-5 positions, or (ii) the 1-2, 4-5 and 16-17 positions;

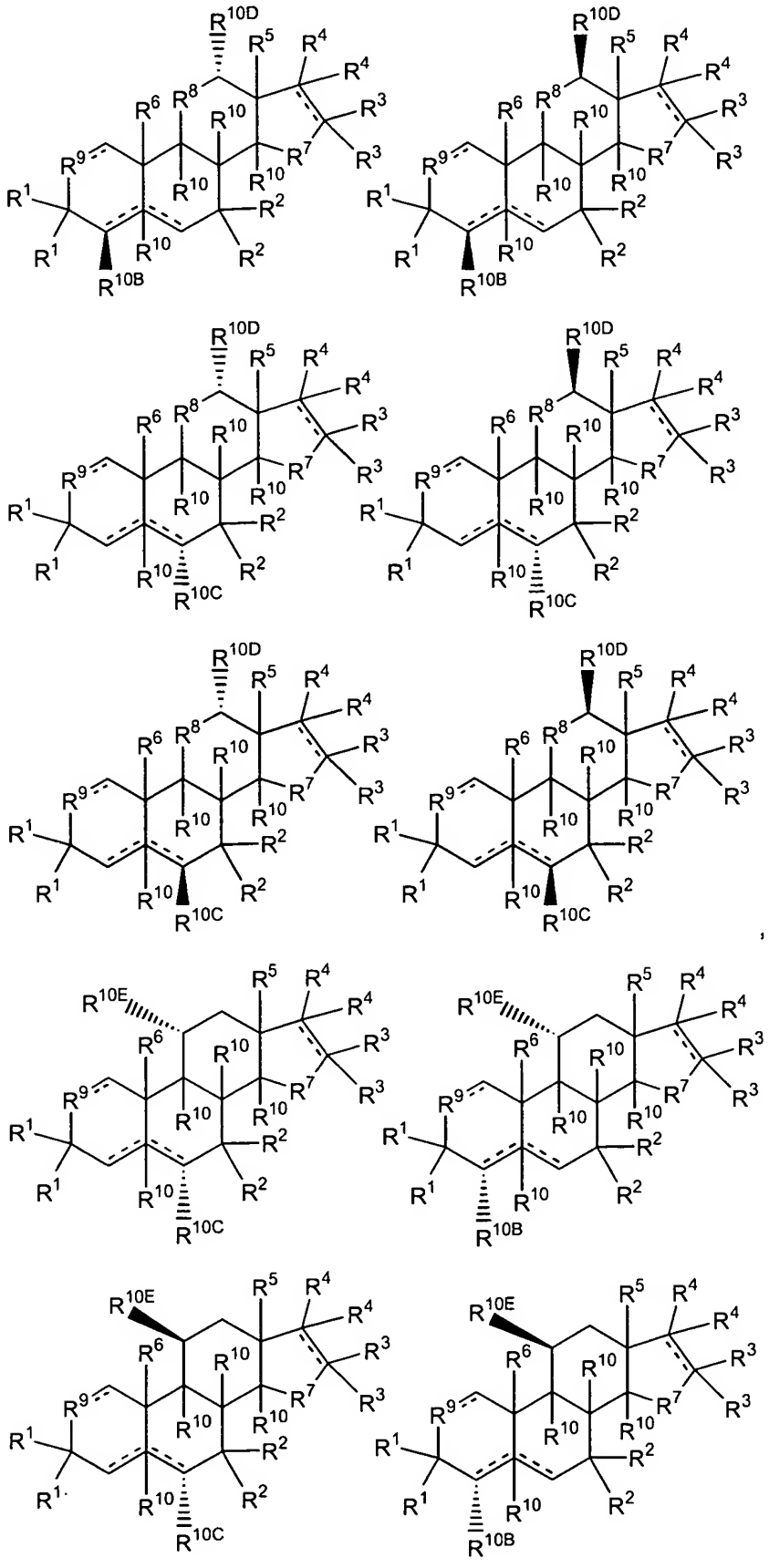
(e) R^{10A} and R^{10C} are bonded to the rings to which they are attached by a single bond and a double bond is present at (i) the 1-2 and 5-6 positions, or (ii) the 1-2, 5-6 and 16-17 positions; or

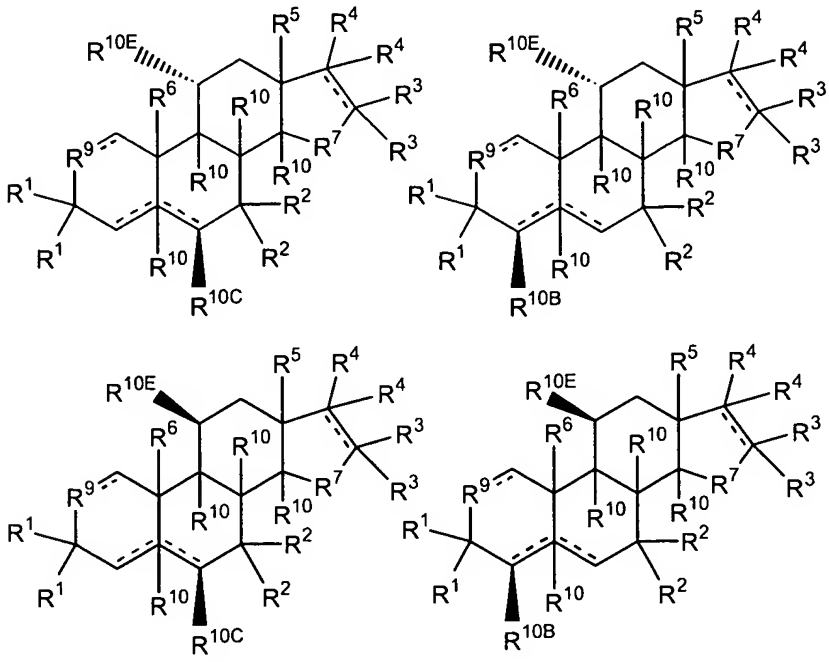
(f) no double bond is present.

4. (previously amended) Use according to claim 3 wherein the compounds of structure 5, 6, 7, 8, 9, 10, 11 and 12 have the structure









provided that if a double bond is present at the 1-2, 4-5 or 5-6 positions, then R^{10A}, R^{10B} or R^{10C} respectively are bonded to the ring to which they are linked by a single bond.

5. (previously amended) Use according to claim 4 wherein (1) R^5 and R^6 respectively are in the α,α, α,β, β,α or β,β configuration and R^5 and R^6 are optionally both $-CH_3$ or are optionally selected from $-CH_3$ and $-CH_2OH$ or (2) R^5 and R^6 are both in the β-configuration and R^5 and R^6 are optionally both $-CH_3$ or are optionally $-CH_3$ and $-CH_2OH$.

6. (previously amended) Use according to claim 5 wherein R^{10} at the 5, 8, 9 and 14-positions respectively are

(1) -H, -H, -H, -H;

(2) -H, -H, halogen (-F, -Cl, -Br or -I), -H;

(3) -H, -H, -H, -OH;

(4) -H, -H, halogen (-F, -Cl, -Br or -I), -OH;

(5) -optionally substituted alkyl (e.g., $-CH_3$, $-CH_2OH$, $-CH_2O$-ester, $-C_2H_5$), -H, -H, -H;

(6) -optionally substituted alkyl (e.g., $-CH_3$, $-CH_2OH$, $-CH_2O$-ester, $-C_2H_5$), -H, halogen (-F, -Cl, -Br or -I), -H;

(7) -optionally substituted alkyl (e.g., $-CH_3$, $-CH_2OH$, $-CH_2O$-ester, $-C_2H_5$), -H, -H, -OH;

(8) -acyl (e.g., $-C(O)-(CH_2)_{0-2}-CH_3$), -H, -H, -H;

(9) -ester (e.g., acetoxy or propionoxy), -H, -H, -H;

(10) -ether (e.g., -O-$(CH_2)_{0-2}$-CH_3), -H, -H, -H;

(11) -ester (e.g., acetoxy, propionoxy, -O-C(O)-$(CH_2)_{1-6}$-H), -H, halogen (e.g., -F, -Cl, -Br), -H;

(12) -ester (e.g., acetoxy or propionoxy), -H, -H, -OH;

(13) -H, -H, -H, -acyl (e.g., -C(O)-$(CH_2)_{0-2}$-CH_3);

(14) -H, -H, -H, -ester (e.g., acetoxy or propionoxy); or

(15) -H, -H, -H, -ether (e.g., -O-$(CH_2)_{0-2}$-CH_3, -OCH_3, -OC_2H_5, -OCH_2OH, -OCH_2F, -OCH_2Br, -OCH_2COOH, -OCH_2NH_2, -OCH_2CH_2OH, -OCH_2CH_2F, -OCH_2CH_2Br, -OCH_2CH_2COOH or -$OCH_2CH_2NH_2$).

7. (previously amended) Use according to claim 6 wherein R^7 is -CH_2-, -CHOH-, -CH(αR^{10})-, -CH(ester)-, -CH(alkoxy)- or -CH(halogen)- where the hydroxyl, ester or alkoxy group or the halogen atom is present in the α-configuration and the alkoxy group is optionally selected from -OCH_3, -OC_2H_5 and -OC_3H_7 and the halogen atom is -F, -Cl, -Br or -I.

8. (previously amended) Use according to claim 7 wherein R^8 is -CH_2-, -CF_2-, -CHOH-, -CH(αR^{10})-, -CH(ester)-, -CH(alkoxy)- or -CH(halogen)- where the hydroxyl, ester or alkoxy group or the halogen atom is present in the α-configuration and the alkoxy group is optionally selected from -OCH_3, -OC_2H_5 and -OC_3H_7 and the halogen atom is -F, -Cl, -Br or -I.

9. (currently amended) Use according to claim 1 wherein the formula 1 compound is 16α-bromo-3β-hydroxy-5α-androstan-17-one, 16α-fluoro-3β-hydroxy-5α-androstan-17-one, 16α-chloro-3β-hydroxy-5α-androstan-17-one, 16β-bromo-3β-hydroxy-5α-androstan-17-one, 16β-fluoro-3β-hydroxy-5α-androstan-17-one, 16β-chloro-3β-hydroxy-5α-androstan-17-one, 16α,3β-dihydroxy-5α-androstan-17-one, 16β,3β-dihydroxy-5α-androstan-17-one, 16α,3α-dihydroxy-5α-androstan-17-one, 16β,3α-dihydroxy-5α-androstan-17-one, 16α-bromo-3β-hydroxy-5α-androstan-17-one hemihydrate, 3α-hydroxy-16α-fluoroandrostane-17-one, 3β-hydroxy-16α-fluoroandrostane-17-one, 17α-hydroxy-16α-fluoroandrostane-3-one, 17β-hydroxy-16α-fluoroandrostane-3-one, 17α-hydroxy-16α-fluoroandrostane-4-one, 17β-hydroxy-16α-fluoroandrostane-4-one, 17α-hydroxy-16α-fluoroandrostane-6-one, 17β-hydroxy-16α-fluoroandrostane-6-one, 17α-hydroxy-16α-fluoroandrostane-7-one, 17β-hydroxy-16α-fluoroandrostane-7-one, 17α-hydroxy-16α-

fluoroandrostane-11-one, 17β-hydroxy-16α-fluoroandrostane-11-one, 16α-fluoroandrost-5-ene-17-one, 7α-hydroxy-16α-fluoroandrost-5-ene-17-one, 7β-hydroxy-16α-fluoroandrost-5-ene-17-one, 4α-hydroxy-16α-fluoroandrost-5-ene-17-one, 3α-hydroxy-16α-fluoroandrost-5-ene-17-one, 3β-hydroxy-16α-fluoroandrost-5-ene-17-one,4β-hydroxy-16α-fluoroandrost-5-ene-17-one, 6α-hydroxy-16α-fluoroandrost-5-ene-17-one, 6β-hydroxy-16α-fluoroandrost-5-ene-17-one, 11α-hydroxy-16α-fluoroandrost-5-ene-17-one, 11β-hydroxy-16α-fluoroandrost-5-ene-17-one, 4α,17β-dihydroxy-16α-fluoroandrost-5-ene, 4β,17β-dihydroxy-16α-fluoroandrost-5-ene, 6α,17β-dihydroxy-16α-fluoroandrost-5-ene, 6β,17β-dihydroxy-16α-fluoroandrost-5-ene, 11α,17β-dihydroxy-16α-fluoroandrost-5-ene, 11β,17β-dihydroxy-16α-fluoroandrost-5-ene, 4α,17α-dihydroxy-16α-fluoroandrost-5-ene, 4β,17α-dihydroxy-16α-fluoroandrost-5-ene, 6α,17α-dihydroxy-16α-fluoroandrost-5-ene, 6β,17α-dihydroxy-16α-fluoroandrost-5-ene, 11α,17α-dihydroxy-16α-fluoroandrost-5-ene, 11β,17α-dihydroxy-16α-fluoroandrost-5-ene, 7α,17β-dihydroxy-16α-fluoroandrost-5-ene, 7β,17β-dihydroxy-16α-fluoroandrost-5-ene, 3α,17β-dihydroxy-16α-fluoroandrost-5-ene, 3β,17β-dihydroxy-16α-fluoroandrost-5-ene, 3α,17α-dihydroxy-16α-fluoroandrost-5-ene, 3β,17α-dihydroxy-16α-fluoroandrost-5-ene, 1α,17β-dihydroxy-16α-fluoroandrost-5-ene, 1β,17β-dihydroxy-16α-fluoroandrost-5-ene, 2α,17β-dihydroxy-16α-fluoroandrost-5-ene, 2β,17β-dihydroxy-16α-fluoroandrost-5-ene, 12α,17β-dihydroxy-16α-fluoroandrost-5-ene, 12β,17β-dihydroxy-16α-fluoroandrost-5-ene, 1α,17α-dihydroxy-16α-fluoroandrost-5-ene, 1β,17α-dihydroxy-16α-fluoroandrost-5-ene, 2α,17α-dihydroxy-16α-fluoroandrost-5-ene, 2β,17α-dihydroxy-16α-fluoroandrost-5-ene, 12α,17α-dihydroxy-16α-fluoroandrost-5-ene, 12β,17α-dihydroxy-16α-fluoroandrost-5-ene, 15α,17β-dihydroxy-16α-fluoroandrost-5-ene, 15β,17β-dihydroxy-16α-fluoroandrost-5-ene, 17β,18-dihydroxy-16α-fluoroandrost-5-ene, 17β,19-dihydroxy-16α-fluoroandrost-5-ene, 15α,17α-dihydroxy-16α-fluoroandrost-5-ene, 15β,17α-dihydroxy-16α-fluoroandrost-5-ene, 17α,18-dihydroxy-16α-fluoroandrost-5-ene, 17α,19-dihydroxy-16α-fluoroandrost-5-ene, 16α-fluoroandrost-4-ene-17-one, 7α-hydroxy-16α-fluoroandrost-4-ene-17-one, 7β-hydroxy-16α-fluoroandrost-4-ene-17-one, 3α-hydroxy-16α-fluoroandrost-4-ene-17-one, 3β-hydroxy-16α-fluoroandrost-4-ene-17-one, 4α-hydroxy-16α-fluoroandrost-4-ene-17-one, 4β-hydroxy-16α-

fluoroandrost-4-ene-17-one, 6α-hydroxy-16α-fluoroandrost-4-ene-17-one, 6β-hydroxy-16α-fluoroandrost-4-ene-17-one, 11α-hydroxy-16α-fluoroandrost-4-ene-17-one, 11β-hydroxy-16α-fluoroandrost-4-ene-17-one, 4α,17β-dihydroxy-16α-fluoroandrost-4-ene, 4β,17β-dihydroxy-16α-fluoroandrost-4-ene, 6α,17β-dihydroxy-16α-fluoroandrost-4-ene, 6β,17β-dihydroxy-16α-fluoroandrost-4-ene, 11α,17β-dihydroxy-16α-fluoroandrost-4-ene, 11β,17β-dihydroxy-16α-fluoroandrost-4-ene, 4α,17α-dihydroxy-16α-fluoroandrost-4-ene, 4β,17α-dihydroxy-16α-fluoroandrost-4-ene, 6α,17α-dihydroxy-16α-fluoroandrost-4-ene, 6β,17α-dihydroxy-16α-fluoroandrost-4-ene, 11α,17α-dihydroxy-16α-fluoroandrost-4-ene, 11β,17α-dihydroxy-16α-fluoroandrost-4-ene, 7α,17β-dihydroxy-16α-fluoroandrost-4-ene, 7β,17β-dihydroxy-16α-fluoroandrost-4-ene, 3α,17β-dihydroxy-16α-fluoroandrost-4-ene, 3β,17β-dihydroxy-16α-fluoroandrost-4-ene, 3α,17α-dihydroxy-16α-fluoroandrost-4-ene, 3β,17α-dihydroxy-16α-fluoroandrost-4-ene, 1α,17β-dihydroxy-16α-fluoroandrost-4-ene, 1β,17β-dihydroxy-16α-fluoroandrost-4-ene, 2α,17β-dihydroxy-16α-fluoroandrost-4-ene, 2β,17β-dihydroxy-16α-fluoroandrost-4-ene, 12α,17β-dihydroxy-16α-fluoroandrost-4-ene, 12β,17β-dihydroxy-16α-fluoroandrost-4-ene, 1α,17α-dihydroxy-16α-fluoroandrost-4-ene, 1β,17α-dihydroxy-16α-fluoroandrost-4-ene, 2α,17α-dihydroxy-16α-fluoroandrost-4-ene, 2β,17α-dihydroxy-16α-fluoroandrost-4-ene, 12α,17α-dihydroxy-16α-fluoroandrost-4-ene, 12β,17α-dihydroxy-16α-fluoroandrost-4-ene, 15α,17β-dihydroxy-16α-fluoroandrost-4-ene, 15β,17β-dihydroxy-16α-fluoroandrost-4-ene, 17β,18-dihydroxy-16α-fluoroandrost-4-ene, 17β,19-dihydroxy-16α-fluoroandrost-4-ene, 15α,17α-dihydroxy-16α-fluoroandrost-4-ene, 15β,17α-dihydroxy-16α-fluoroandrost-4-ene, 17α,18-dihydroxy-16α-fluoroandrost-4-ene, 17α,19-dihydroxy-16α-fluoroandrost-4-ene, 3β,17β-dihydroxyandrost-5-ene, 3β-hydroxy-7,17-dioxoandrost-5-ene, 3α-hydroxy-7,17-dioxoandrost-5-ene, 3,17-dioxoandrost-5-ene, 3,17-dioxoandrost-4-ene, 3,17-dioxoandrost-1,4-diene, 3β,7β,17β-trihydroxyandrost-5-ene, 3β,7β,17β-trihydroxyandrostane, 3β,16α-dihydroxy-17-oxoandrostane, 3α,16α-dihydroxy-17-oxoandrostane, 3β,16β-dihydroxy-17-oxoandrostane, 3α,16β-dihydroxy-17-oxoandrostane, 3β,16α,17β-trihydroxyandrostane, 3β,16β,17β-trihydroxyandrostane, 3β,16α,17α-trihydroxyandrostane, 3β,16β,17α-trihydroxyandrostane, 3α,16α,17β-trihydroxyandrostane, 3α,16β,17β-trihydroxyandrostane ~~or an analog of any of~~

~~the foregoing compounds that is suitably substituted to fall within the scope of the claim~~.

10. (currently amended) Use according to ~~claim 1 or 2~~ claim 1 wherein the subject has, or is subject or susceptible to developing, neutropenia.

11. (previously amended) Use according to claim 10 wherein the subject is a human and wherein the neutropenia is postinfectious neutropenia, autoimmune neutropenia, chronic idiopathic neutropenia or a neutropenia resulting from or potentially resulting result from a cancer chemotherapy, chemotherapy for an autoimmune disease, an antiviral therapy, radiation exposure, tissue or solid organ allograft or xenograft rejection or immune suppression therapy in tissue or solid organ transplantation or aging or immunesenescence.

12. (previously amended) Use according to claim 11 wherein one R^4 is in the β-configuration or the α-configuration and is $-NH_2$, a substituted amine or an amide, which is optionally selected from $-NH_2$, $-NHCH_3$, $-N(CH_3)_2$, $-NHR^{PR}$, -NH-C(O)-H and -NH-C(O)-optionally substituted alkyl.

13. (previously amended) Use according to claim 11 wherein the formula 1 compound is 3β-hydroxy-17β-aminoandrost-5-ene, 3β-hydroxy-16α-fluoro-17β-aminoandrost-5-ene, 3β-hydroxy-16β-fluoro-17β-aminoandrost-5-ene, 3β-hydroxy-16,16-difluoro-17β-aminoandrost-5-ene, 3β,16α-dihydroxy-17β-aminoandrost-5-ene, 3β,16β-dihydroxy-17β-aminoandrost-5-ene, 3β-hydroxy-16,16-dimethyl-17β-aminoandrost-5-ene, an ester or carbonate of any of these compounds or an analog of any of the foregoing compounds where the double bond at the 5-6 position is absent and a hydrogen or other R^{10} moiety is present at the 5-position in the α- or β-configuration and/or wherein the hydroxyl group or ester or carbonate analog at the 3-position is present in the α-configuration.

14. (previously amended) Use according to claim 1 wherein the formula 1 compound is 3β-hydroxy-17β-aminoandrost-5-ene and wherein the subject is a human who has, or is subject or susceptible to developing, neutropenia.

15. (previously amended) Use according to claim 1 wherein the subject is a human having cystic fibrosis.

16. (previously amended) Use according to claim 15, wherein one or more symptoms or syndromes are ameliorated, or wherein the progression of the disease is reduced.

17. (previously amended) Use according to claim 16, wherein the one or more symptoms or syndromes are 1, 2, 3 or more of *Staphylococcus*, *Haemophilus influenzae, Pseudomonas* or *Burkholderia* respiratory tract or lung infection or propensity to develop a detectable infection or colonization, coughing, wheezing, cyanosis, bronchiolitis, bronchospasm, pneumothorax, hemoptysis, pancreatic exocrine insufficiency, bronchiectatic lung disease, atelectasis-consolidation, pulmonary edema, increased lung vascular hydrostatic pressure, increased lung vascular permeability, sinusitis, respiratory insufficiency, bronchial wall or interlobular septa thickening, reduction of forced expiratory volume in 1 second, dyspnea, impaired male fertility, elevated sweat chloride, mucous plugging, tree-in-bud sign, mosaic perfusion pattern, glucose intolerance or abnormal elevation of one or more of IL-4, IL-8, RANTES, neutrophil elastase, eosinophils, macrophages, neutrophils, eosinophil cationic protein or cysteinyl leukotrienes.

18. (previously amended) Use according to ~~claim 15, 16 or 17~~ claim 15 wherein the formula 1 compound is 16α-bromoepiandrosterone, 16α-bromoepiandrosterone hemihydrate, 16β-bromoepiandrosterone, 16α-hydroxyepiandrosterone, 16β-hydroxyepiandrosterone, 3α,17β-dihydroxyandrostane, 3β,17β-dihydroxyandrostane, 3α,16α,17β-trihydroxyandrostane, 3α,16β,17β-trihydroxyandrostane, 3β,16α,17β-trihydroxyandrostane, 3β,16β,17β-trihydroxyandrostane, or an ester, carbonate or other analog of any of these compounds that can convert to the compound by metabolism or hydrolysis.

19. (previously amended) A method to treat or to reduce the severity of a chronic allergy or an atopic disease, or one or more symptoms of the chronic allergy or atopic disease in a subject in need thereof, comprising administering an effective amount of a formula 1 compound of claim 1, wherein

one R^1 is, or both R^1 together are, -OH, $-OR^{PR}$, $-SR^{PR}$, $-O-Si-(R^{13})_3$, -COOH, $-OSO_3H$, $-OPO_3H$, =O, =S, an ester, a thioester, a thionoester, a phosphoester, a phosphothioester, a phosphonoester, a phosphiniester, a sulfite ester, a sulfate ester, an amide, an amino acid, a peptide, an ether, a thioether, a carbonate or a carbamate, and the other R^1 is independently chosen; and

one R^4 is, or both R^4 together are, -OH, $-OR^{PR}$, $-SR^{PR}$, $-N(R^{PR})_2$, $-O-Si-(R^{13})_3$, -CHO, -CHS, -CN, -SCN, $-NO_2$, $-NH_2$, -COOH, $-OSO_3H$, $-OPO_3H$, =O, =S, =N-OH, =N-O-optionally substituted alkyl, an ester, a thioester, a thionoester, a phosphoester, a phosphothioester, a phosphonoester, a phosphiniester, a sulfite ester, a sulfate ester, an amide, an amino acid, a peptide, an ether, a thioether, an acyl group, a thioacyl group, a carbonate or a carbamate, and the other R^4 is independently chosen.

20. (currently amended) ~~Use according to~~ The method of claim 19 wherein the compound is 16α-bromoepiandrosterone, 16α-bromoepiandrosterone hemihydrate, 16β-bromoepiandrosterone, 16α-iodoepiandrosterone, 16-oxoepiandrosterone, 16-oxoandrosterone, 3β,16α-dihydroxyandrostane-17-one, 3α,16α-dihydroxyandrostane-17-one, 3β,16β-dihydroxyandrostane-17-one, 3α,16β-dihydroxyandrostane-17-one, 3β,16α,17β-trihydroxyandrostane, 3α,16α,17β-trihydroxyandrostane, 3β,16β,17β-trihydroxyandrostane, 3α,16β,17β-trihydroxyandrostane, or an analog of any of these compounds that is (1) 2-oxa or 11-oxa substituted, (2) substituted at the 7-position with an α-halogen, β-halogen, α-hydroxyl, β-hydroxyl or oxo moiety, (3) a D-ring homo analog, (4) a 19-nor analog and/or (5) an analog of any of the foregoing compounds that is substituted with an R^{10} substituent disclosed herein.

21. (currently amended) ~~Use according to~~ The method of claim 20 wherein the level or activity of IgE in the subject is at least transiently detectably reduced.

22. (currently amended) ~~Use according to~~ The method of claim 1 wherein the subject is a human who has a sickle cell disease.

23. (currently amended) ~~Use according to~~ The method of claim 22 wherein the treatment reduces (1) the severity of pain during vascular or microvascular occlusions, (2) the severity of vascular or microvascular occlusions or (3) the frquency of vascular or microvascular occlusions.

24. (currently amended) ~~Use according to claim 22 or 23~~ The method of claim 22 comprising intermittent administration of the formula 1 compound to the subject.

25. (currently amended) ~~Use according to claim 22, 23 or 24~~ The method of claim 22 wherein one R^1 is, or both R^1 together are, -H, -OH, $-OR^{PR}$, -

SR^{PR}, -O-Si-$(R^{13})_3$, -COOH, -OSO_3H, -OPO_3H, =O, =S, an ester, a thioester, a thionoester, a phosphoester, a phosphothioester, a phosphonoester, a phosphiniester, a sulfite ester, a sulfate ester, an amide, an amino acid, a peptide, an ether, a thioether, a carbonate or a carbamate, and the other R^1 is independently chosen; and

one R^4 is, or both R^4 together are, -OH, -OR^{PR}, -SR^{PR}, -$N(R^{PR})_2$, -O-Si-$(R^{13})_3$, -CHO, -CHS, -CN, -SCN, -NO_2, -NH_2, -COOH, -OSO_3H, -OPO_3H, =O, =S, =N-OH, =N-O-optionally substituted alkyl, an ester, a thioester, a thionoester, a phosphoester, a phosphothioester, a phosphonoester, a phosphiniester, a sulfite ester, a sulfate ester, an amide, an amino acid, a peptide, an ether, a thioether, an acyl group, a thioacyl group, a carbonate or a carbamate, and the other R^4 is independently chosen.

26. (currently amended) ~~Use according to~~ The method of claim 25 wherein the compound is 3β,17β-dihydroxyandrost-5-ene, 3β,7β,17β-trihydroxyandrost-5-ene, 3β,17β-dihydroxyandrost-1,5-diene, 3β,7β,17β-trihydroxyandrost-1,5-diene, 3β,17β-dihydroxy-16-haloandrost-5-ene, 3β,7β,17β-trihydroxy-16-haloandrost-5-ene, 16α-fluoro-17-oxoandrost-5-ene, 3α-hydroxy-16α-fluoro-17-oxoandrost-5-ene, 3β-hydroxy-16α-fluoro-17-oxoandrost-5-ene, 3β,17β-dihydroxy-16α-fluoroandrost-5-ene, 3α,17β-dihydroxy-16α-fluoroandrost-5-ene, 16α-bromoepiandrosterone, 16α-bromoepiandrosterone hemihydrate, 16α-iodoepiandrosterone, 16-oxoepiandrosterone, 16-oxoandrosterone, 3β,16α-dihydroxyandrostane-17-one, 3α,16α-dihydroxyandrostane-17-one, 3β,16β-dihydroxyandrostane-17-one, 3α,16β-dihydroxyandrostane-17-one, 3β,16α,17β-trihydroxyandrostane, 3α,16α,17β-trihydroxyandrostane, 3β,16β,17β-trihydroxyandrostane, 3α,16β,17β-trihydroxyandrostane, or an analog of any of these compounds that is (1) 11-oxa substituted or 2-oxa substituted if no double bond is present at the 1-2 position, (2) substituted at the 7-position with an α-halogen, β-halogen, α-hydroxyl, β-hydroxyl or oxo moiety, (3) a D-ring homo analog, (4) a 19-nor analog and/or (5) an analog of any of the foregoing compounds that is substituted with an R^{10} substituent disclosed herein.

27. (currently amended) A method to modulate the expression in a cell of the level of or an activity of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 or more gene products or gene transcripts in the cell, comprising contacting an effective amount of the

compound with the cell under suitable conditions and for a sufficient time to detectably modulate the activity or level of the genes, or gene products in the cell, wherein the ~~compound is a formula 1~~ compound is a compound of claim 1 and the gene products or gene transcripts are selected from USF1, c-Fos, EGR1, Cul1, RIPK2, IκBα, IκBKb, NF-κB1 p50, FCAR, c-Fos/ C/EBPβ, RANTES, ICAM1, TSG (TNFAIP6), IL-2 receptor α, GRO2, GRO3, HO1, Jun B, c-Fos/JunB complex, JunB/ATF3 complex, c-Jun, c-Fos/c-Jun complex, ATF-3, MMP1, TSG-6 (TNFAIP3), AP-1, EGR1, TGFβ, ATF-3/c-Jun complex, c-Fos, MMP3, IL-8, STAT5A, STAT5B, CDKN1A, IFNγ receptor 2 (IFNγR2), T-bet, C reactive protein, immunoglobulin E, an AP-1 family protein, GATA-3, Jak2, Tyk2, stat1, stat3, stat4, stat5, stat6, MIP-1α, MIP-2, IP-10, MCP-1, TNF-α, TNF-β, LT-β, IFN-α, IFN-β, TGF-β1, NF-κB, IL-1α, IL-1β, IL-4, IL-6, IL-10, IL-12 receptor β1, IL-12p35, IL-12p40, IL-23, IL-23 receptor, Nrf2, a Maf protein, a thioredoxin, NQO1, GST, HO 1, SOD2, the catalytic subunit of γGCS, the regulatory subunit of γGCS and xCT.

28. (currently amended) ~~Use according to~~ The method of claim 27 wherein there is a detectable increase in the level of the mRNA, the protein or one or more biological activities associated with the gene product.

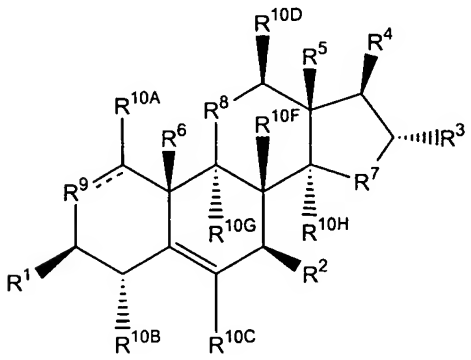
29. (currently amended) ~~Use according to claim 27 or 28~~ The method of claim 27 wherein the formula 1 compound is 16α-bromo-3β-hydroxy-5α-androstan-17-one, 16α-bromo-3β-hydroxy-5α-androstan-17-one hemihydrate, 16α-fluoro-3β-hydroxy-5α-androstan-17-one, 16α-chloro-3β-hydroxy-5α-androstan-17-one, 16β-bromo-3β-hydroxy-5α-androstan-17-one, 16β-fluoro-3β-hydroxy-5α-androstan-17-one, 16β-chloro-3β-hydroxy-5α-androstan-17-one, 16α,3β-dihydroxy-5α-androstan-17-one, 16β,3β-dihydroxy-5α-androstan-17-one, 16α,3α-dihydroxy-5α-androstan-17-one, 16β,3α-dihydroxy-5α-androstan-17-one, 16α-bromo-3β-hydroxy-5α-androstan-17-one hemihydrate, 3α-hydroxy-16α-fluoroandrostane-17-one, 3β-hydroxy-16α-fluoroandrostane-17-one, 17α-hydroxy-16α-fluoroandrostane-3-one, 17β-hydroxy-16α-fluoroandrostane-3-one, 17α-hydroxy-16α-fluoroandrostane-4-one, 17β-hydroxy-16α-fluoroandrostane-4-one, 17α-hydroxy-16α-fluoroandrostane-6-one, 17β-hydroxy-16α-fluoroandrostane-6-one, 17α-hydroxy-16α-fluoroandrostane-7-one, 17β-hydroxy-16α-fluoroandrostane-7-one, 17α-hydroxy-16α-fluoroandrostane-11-one, 17β-hydroxy-16α-fluoroandrostane-11-one, 16α-

fluoroandrost-5-ene-17-one, 7α-hydroxy-16α-fluoroandrost-5-ene-17-one, 7β-hydroxy-16α-fluoroandrost-5-ene-17-one, 4α-hydroxy-16α-fluoroandrost-5-ene-17-one, 3α-hydroxy-16α-fluoroandrost-5-ene-17-one, 3β-hydroxy-16α-fluoroandrost-5-ene-17-one,4β-hydroxy-16α-fluoroandrost-5-ene-17-one, 6α-hydroxy-16α-fluoroandrost-5-ene-17-one, 6β-hydroxy-16α-fluoroandrost-5-ene-17-one, 11α-hydroxy-16α-fluoroandrost-5-ene-17-one, 11β-hydroxy-16α-fluoroandrost-5-ene-17-one, 4α,17β-dihydroxy-16α-fluoroandrost-5-ene, 4β,17β-dihydroxy-16α-fluoroandrost-5-ene, 6α,17β-dihydroxy-16α-fluoroandrost-5-ene, 6β,17β-dihydroxy-16α-fluoroandrost-5-ene, 11α,17β-dihydroxy-16α-fluoroandrost-5-ene, 11β,17β-dihydroxy-16α-fluoroandrost-5-ene, 4α,17α-dihydroxy-16α-fluoroandrost-5-ene, 4β,17α-dihydroxy-16α-fluoroandrost-5-ene, 6α,17α-dihydroxy-16α-fluoroandrost-5-ene, 6β,17α-dihydroxy-16α-fluoroandrost-5-ene, 11α,17α-dihydroxy-16α-fluoroandrost-5-ene, 11β,17α-dihydroxy-16α-fluoroandrost-5-ene, 7α,17β-dihydroxy-16α-fluoroandrost-5-ene, 7β,17β-dihydroxy-16α-fluoroandrost-5-ene, 3α,17β-dihydroxy-16α-fluoroandrost-5-ene, 3β,17β-dihydroxy-16α-fluoroandrost-5-ene, 3α,17α-dihydroxy-16α-fluoroandrost-5-ene, 3β,17α-dihydroxy-16α-fluoroandrost-5-ene, 1α,17β-dihydroxy-16α-fluoroandrost-5-ene, 1β,17β-dihydroxy-16α-fluoroandrost-5-ene, 2α,17β-dihydroxy-16α-fluoroandrost-5-ene, 2β,17β-dihydroxy-16α-fluoroandrost-5-ene, 12α,17β-dihydroxy-16α-fluoroandrost-5-ene, 12β,17β-dihydroxy-16α-fluoroandrost-5-ene, 1α,17α-dihydroxy-16α-fluoroandrost-5-ene, 1β,17α-dihydroxy-16α-fluoroandrost-5-ene, 2α,17α-dihydroxy-16α-fluoroandrost-5-ene, 2β,17α-dihydroxy-16α-fluoroandrost-5-ene, 12α,17α-dihydroxy-16α-fluoroandrost-5-ene, 12β,17α-dihydroxy-16α-fluoroandrost-5-ene, 15α,17β-dihydroxy-16α-fluoroandrost-5-ene, 15β,17β-dihydroxy-16α-fluoroandrost-5-ene, 17β,18-dihydroxy-16α-fluoroandrost-5-ene, 17β,19-dihydroxy-16α-fluoroandrost-5-ene, 15α,17α-dihydroxy-16α-fluoroandrost-5-ene, 15β,17α-dihydroxy-16α-fluoroandrost-5-ene, 17α,18-dihydroxy-16α-fluoroandrost-5-ene, 17α,19-dihydroxy-16α-fluoroandrost-5-ene, 16α-fluoroandrost-4-ene-17-one, 7α-hydroxy-16α-fluoroandrost-4-ene-17-one, 7β-hydroxy-16α-fluoroandrost-4-ene-17-one, 3α-hydroxy-16α-fluoroandrost-4-ene-17-one, 3β-hydroxy-16α-fluoroandrost-4-ene-17-one, 4α-hydroxy-16α-fluoroandrost-4-ene-17-one, 4β-hydroxy-16α-fluoroandrost-4-ene-17-one, 6α-hydroxy-16α-fluoroandrost-4-ene-17-one, 6β-

hydroxy-16α-fluoroandrost-4-ene-17-one, 11α-hydroxy-16α-fluoroandrost-4-ene-17-one, 11β-hydroxy-16α-fluoroandrost-4-ene-17-one, 4α,17β-dihydroxy-16α-fluoroandrost-4-ene, 4β,17β-dihydroxy-16α-fluoroandrost-4-ene, 6α,17β-dihydroxy-16α-fluoroandrost-4-ene, 6β,17β-dihydroxy-16α-fluoroandrost-4-ene, 11α,17β-dihydroxy-16α-fluoroandrost-4-ene, 11β,17β-dihydroxy-16α-fluoroandrost-4-ene, 4α,17α-dihydroxy-16α-fluoroandrost-4-ene, 4β,17α-dihydroxy-16α-fluoroandrost-4-ene, 6α,17α-dihydroxy-16α-fluoroandrost-4-ene, 6β,17α-dihydroxy-16α-fluoroandrost-4-ene, 11α,17α-dihydroxy-16α-fluoroandrost-4-ene, 11β,17α-dihydroxy-16α-fluoroandrost-4-ene, 7α,17β-dihydroxy-16α-fluoroandrost-4-ene, 7β,17β-dihydroxy-16α-fluoroandrost-4-ene, 3α,17β-dihydroxy-16α-fluoroandrost-4-ene, 3β,17β-dihydroxy-16α-fluoroandrost-4-ene, 3α,17α-dihydroxy-16α-fluoroandrost-4-ene, 3β,17α-dihydroxy-16α-fluoroandrost-4-ene, 1α,17β-dihydroxy-16α-fluoroandrost-4-ene, 1β,17β-dihydroxy-16α-fluoroandrost-4-ene, 2α,17β-dihydroxy-16α-fluoroandrost-4-ene, 2β,17β-dihydroxy-16α-fluoroandrost-4-ene, 12α,17β-dihydroxy-16α-fluoroandrost-4-ene, 12β,17β-dihydroxy-16α-fluoroandrost-4-ene, 1α,17α-dihydroxy-16α-fluoroandrost-4-ene, 1β,17α-dihydroxy-16α-fluoroandrost-4-ene, 2α,17α-dihydroxy-16α-fluoroandrost-4-ene, 2β,17α-dihydroxy-16α-fluoroandrost-4-ene, 12α,17α-dihydroxy-16α-fluoroandrost-4-ene, 12β,17α-dihydroxy-16α-fluoroandrost-4-ene, 15α,17β-dihydroxy-16α-fluoroandrost-4-ene, 15β,17β-dihydroxy-16α-fluoroandrost-4-ene, 17β,18-dihydroxy-16α-fluoroandrost-4-ene, 17β,19-dihydroxy-16α-fluoroandrost-4-ene, 15α,17α-dihydroxy-16α-fluoroandrost-4-ene, 15β,17α-dihydroxy-16α-fluoroandrost-4-ene, 17α,18-dihydroxy-16α-fluoroandrost-4-ene, 17α,19-dihydroxy-16α-fluoroandrost-4-ene, 3β,17β-dihydroxyandrost-5-ene, 3β-hydroxy-7,17-dioxoandrost-5-ene, 3α-hydroxy-7,17-dioxoandrost-5-ene, 3,17-dioxoandrost-5-ene, 3,17-dioxoandrost-4-ene, 3,17-dioxoandrost-1,4-diene, 3β,7β,17β-trihydroxyandrost-5-ene, 3β,7β,17β-trihydroxyandrostane, 3β,16α-dihydroxy-17-oxoandrostane, 3α,16α-dihydroxy-17-oxoandrostane, 3β,16β-dihydroxy-17-oxoandrostane, 3α,16β-dihydroxy-17-oxoandrostane, 3β,16α,17β-trihydroxyandrostane, 3β,16β,17β-trihydroxyandrostane, 3β,16α,17α-trihydroxyandrostane, 3β,16β,17α-trihydroxyandrostane, 3α,16α,17β-trihydroxyandrostane, 3α,16β,17β-trihydroxyandrostane or an analog of any of these compounds that is (1) 11-oxa substituted or 2-oxa substituted if no

double bond is present at the 1-2 position, (2) substituted at the 7-position with an α-halogen, β-halogen, α-hydroxyl, β-hydroxyl or oxo moiety, (3) a D-ring homo analog, (4) a 19-nor analog and/or (5) an analog of any of the foregoing compounds that is substituted with an R^{10} substituent disclosed herein.

30. (previously amended) A pharmaceutical formulation comprising one or more excipients and a compound having the structure



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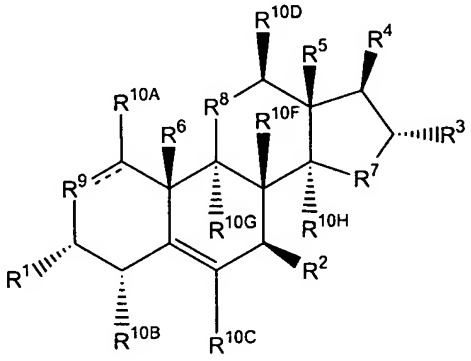

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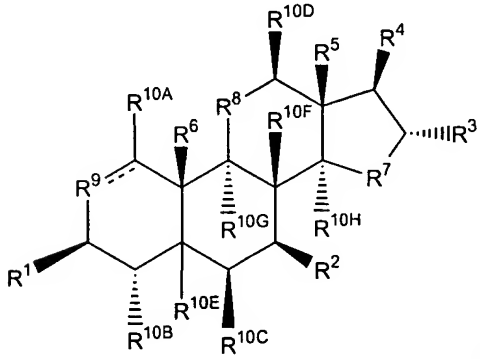

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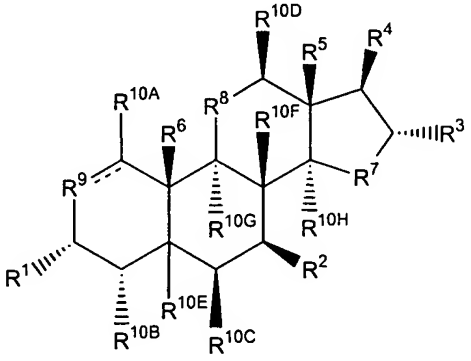


wherein (1)

R^1 is -H, -OH, =O, -SH, =S, $-NH_2$ or -NH-C(O)-CH_3, $-CH_3$, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^2 is -H, -OH, =O, -SH, =S, $=CH_2$, $-CH_3$, $-OCH_3$, -F, -Cl, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^3 is -F, -Cl, -Br or -I;

R^4 is $-NH_2$, $-NHR^{PR}$, -NHOH, -NH-CH_3, =NOH, an amide having the structure -NH-C(O)-optionally substituted alkyl, a carbamate having the structure -NH-C(O)-O-optionally substituted alkyl, a sulfamate having the structure -NH-S(O)(O)-O-organic moiety, a sulfamide having the structure -NH-

S(O)(O)-NH-organic moiety, a sulfonamide having the structure -NH-S(O)(O)-optionally substituted alkyl, a sulfurous diamide or an N-linked amino acid;

R^5 is $-CH_3$ or $-C_2H_5$;

R^6 is -H or $-CH_3$;

R^7 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^8 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^9 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -N=, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^{10A}, R^{10B}, R^{10C} and R^{10D} independently are -H, -OH, =O or halogen;

R^{10E} is in the α-configuration or the β-configuration and is -H or halogen;

R^{10F} is -H;

R^{10G} is -H or halogen; and

R^{10H} is -H, -OH, optionally substituted alkyl or halogen;

or wherein (2)

R^1 is -H, -OH, =O, -SH, =S, $-NH_2$ or $-NH-C(O)-CH_3$, $-CH_3$, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^2 is -OH, =O, -SH, =S, $=CH_2$, $-CH_3$, $-OCH_3$, -F, -Cl, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^3 is -H, -OH, =O, -SH, =S, -F, -Cl, -Br, -I, $=CH_2$, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^4 is $-NH_2$, $-NHR^{PR}$, -NHOH, $-NH-CH_3$, =NOH, an amide having the structure -NH-C(O)-optionally substituted alkyl, a carbamate having the structure -NH-C(O)-O-optionally substituted alkyl, a sulfamate having the structure -NH-S(O)(O)-O-organic moiety, a sulfamide having the structure -NH-S(O)(O)-NH-organic moiety, a sulfonamide having the structure -NH-S(O)(O)-optionally substituted alkyl, a sulfurous diamide or an N-linked amino acid;

R^5 is $-CH_3$ or $-C_2H_5$;

R^6 is -H or $-CH_3$;

R^7 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^8 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^9 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -N=, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^{10A}, R^{10B}, R^{10C} and R^{10D} independently are -H, -OH, =O or halogen;

R^{10E} is in the α-configuration or the β-configuration and is -H or halogen;

R^{10F} is -H;

R^{10G} is -H or halogen; and

R^{10H} is -H, -OH, optionally substituted alkyl or halogen.

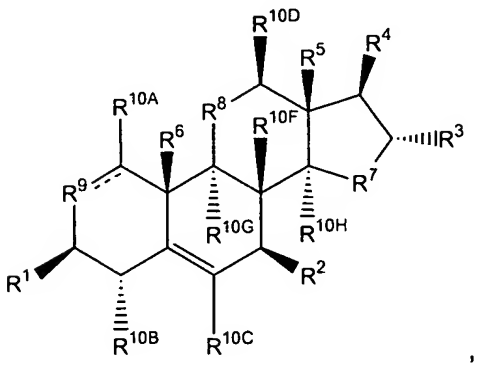
31. (previously amended) The pharmaceutical formulation of claim 30 wherein R^2 is -OH, =O, -SH, =S, $=CH_2$, $-CH_3$, $-OCH_3$, -F or -Cl.

32. (previously amended) The pharmaceutical formulation of claim 30 wherein R^6 is -H.

33. (previously amended) The pharmaceutical formulation of claim 30 wherein R^{10G} is -F or -Cl.

34. (currently amended) The pharmaceutical ~~formulation of claim 30, 31, 32 or 33~~ formulation of claim 30 wherein R^4 is $-NH_2$ or $-NHR^{PR}$.

35. (previously amended) Use of a compound for the treatment of a delayed adverse effect, symptom or condition from ionizing radiation exposure in a subject, wherein the use comprises administering an effective amount of the compound to the subject and the compound has the structure



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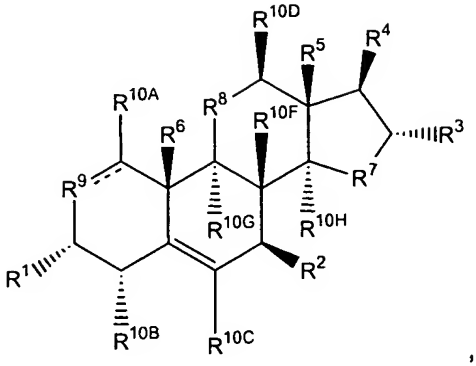

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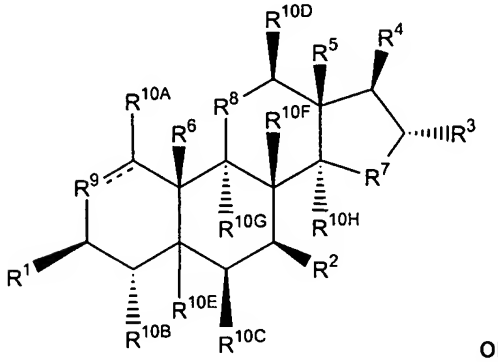

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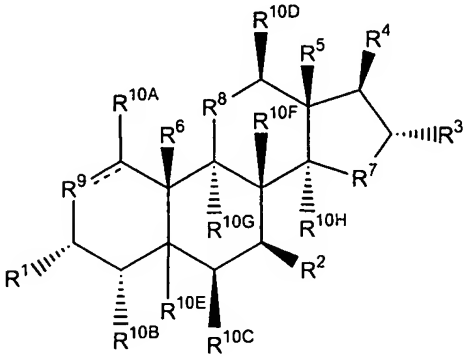


wherein

R^1 is -H, -OH, =O, -SH, =S, $-NH_2$ or -NH-C(O)-CH_3, $-CH_3$, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^2 is -H, -OH, =O, -SH, =S, $=CH_2$, $-CH_3$, $-OCH_3$, -F, -Cl, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^3 is -H, -OH, =O, -F, -Cl, -Br, -I, -CN, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^4 is $-NH_2$, $-NHR^{PR}$, -NHOH, -NH-CH_3, =NOH, an amide having the structure -NH-C(O)-optionally substituted alkyl, a carbamate having the structure -NH-C(O)-O-optionally substituted alkyl, a sulfamate having the structure -NH-S(O)(O)-O-organic moiety, a sulfamide having the structure -NH-S(O)(O)-NH-organic moiety, a sulfonamide having the structure -NH-S(O)(O)-optionally substituted alkyl, a sulfurous diamide or an N-linked amino acid;

R^5 is $-CH_3$ or $-C_2H_5$;

R^6 is -H or $-CH_3$;

R^7 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^8 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^9 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -N=, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^{10A}, R^{10B}, R^{10C} and R^{10D} independently are -H, -OH, =O or halogen;

R^{10E} is in the α-configuration or the β-configuration and is -H or halogen;

R^{10F} is -H;

R^{10G} is -H or halogen; and

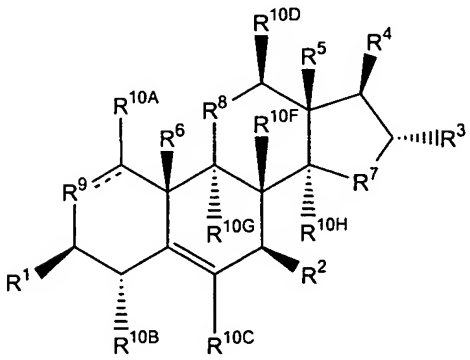
R^{10H} is -H, -OH, optionally substituted alkyl or halogen.

36. (previously amended) Use according to claim 35 wherein the subject is a human or another primate and the delayed adverse effect, symptom or condition is fever, pain, radiation-induced enteritis or diarrhea, pseudomembranous inflammation, perivascular fibrosis, endothelial cell damage or death, cardiac tissue inflammation or damage or pericardial disease, pulmonary tissue inflammation or damage, hematopoietic or marrow cell inflammation or damage, endocrine or thyroid dysfunction, decreased growth or decreased bone development or density, central nervous system inflammation or damage, connective tissue damage, gastric ulceration or small bowel obstruction or fistula formation.

37. (previously amended) Use according to claim 35 or 36 wherein the compound is 3β-hydroxy-17β-aminoandrost-5-ene or a 2-oxa, 2-aza, 11-oxa, 11-aza, 9-halogen, 16-halogen, 16-hydroxyl, 16-oxo, or 19-nor analog thereof.

38. (previously amended) Use according to claim 37 wherein the compound is 3β-hydroxy-17β-aminoandrost-5-ene.

39. (currently amended) Use of a compound for the treatment of an immune suppression condition or an unwanted inflammation or autoimmune condition in a subject, wherein the use comprises administering an effective amount of the compound to a subject in need thereof and the compound has the structure



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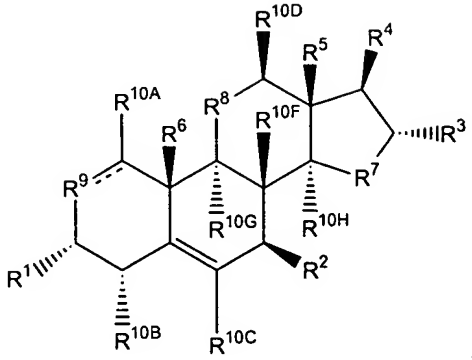

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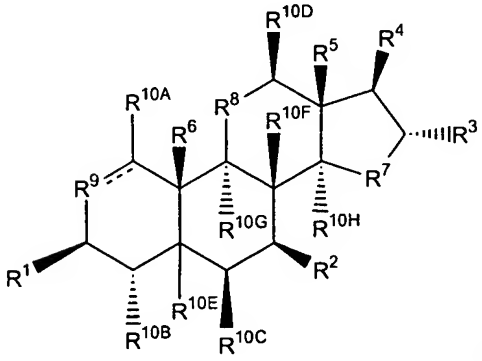

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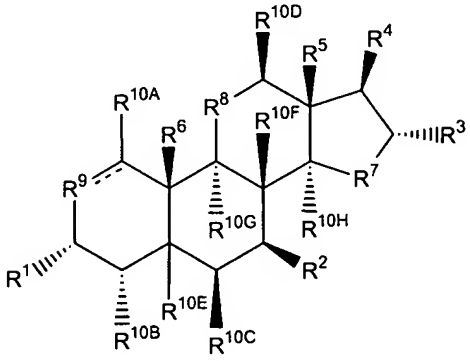

wherein

R^1 is -H, -OH, =O, -SH, =S, $-NH_2$ or -NH-C(O)-CH_3, $-CH_3$, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^2 is -H, -OH, =O, -SH, =S, $=CH_2$, $-CH_3$, $-OCH_3$, -F, -Cl, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^3 is -H, -OH, =O, -F, -Cl, -Br, -I, -CN, ester, ether, thioester, thioether, optionally substituted monosaccharide, optionally substituted oligosaccharide or optionally substituted alkyl;

R^4 is $-NH_2$, $-NHR^{PR}$, -NHOH, -NH-CH_3, =NOH, an amide having the structure -NH-C(O)-optionally substituted alkyl, a carbamate having the structure -NH-C(O)-O-optionally substituted alkyl, a sulfamate having the structure -NH-S(O)(O)-O-organic moiety, a sulfamide having the structure -NH-S(O)(O)-NH-organic moiety, a sulfonamide having the structure -NH-S(O)(O)-optionally substituted alkyl, a sulfurous diamide or an N-linked amino acid;

R^5 is $-CH_3$ or $-C_2H_5$;

R^6 is -H or $-CH_3$;

R^7 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^8 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^9 is $-CH_2-$, $-CF_2-$, $-CH_2-CH_2-$, -O-, -S-, -NH-, -N=, -CH(α-optionally substituted alkyl), -CH(β-optionally substituted alkyl), -CH(α-OH), -CH(β-OH)- or -C(optionally substituted alkyl)$_2$-;

R^{10A}, R^{10B}, R^{10C} and R^{10D} independently are -H, -OH, =O or halogen;

R^{10E} is in the α-configuration or the β-configuration and is -H or halogen;

R^{10F} is -H;

R^{10G} is -H or halogen; and

R^{10H} is -H, -OH, optionally substituted alkyl or halogen.

40. (previously amended) Use according to claim 39 wherein the subject is a human or another primate and the immune suppression condition is an innate immune suppression condition or immunosenesence.

41. (previously amended) Use according to claim 40 wherein the unwanted inflammation or autoimmune condition is rheumatoid arthritis, osteoarthritis, psoriatic arthritis, polyarthritis, osteoporosis, an allergy, multiple sclerosis, dermatitis, autoimmune glomerulonephritis, systemic lupus erythematosus, autoimmune pulmonary inflammation, asthma, ischemia-reperfusion injury, inflammatory bowel disease, regional enteritis, ulcerative colitis or Crohn's disease.

42. (previously amended) Use according to claim 39, 40 or 41 wherein the compound is 3β-hydroxy-17β-aminoandrost-5-ene or a 2-oxa, 2-aza, 11-oxa, 11-aza, 9-halogen, 16-halogen, 16-hydroxyl, 16-oxo, or 19-nor analog thereof.

43. (previously amended) Use according to claim 42 wherein the compound is 3β-hydroxy-17β-aminoandrost-5-ene.

44. (canceled)